REMARKS

Pending claims

At the outset, it is noted that the Office Action inadvertently included claims 2-9, 11-28 and 45 in the restriction requirement. That is, the foregoing claims have all been previously cancelled. See page 1, paragraph 3, of the Request for Filing a Patent Application Under 37 CFR 1.53(b), which was filed on May 1, 2001.

Claim 1 has been cancelled by the present amendment. Thus, claims 10 and 29-44 are pending. The amendments to claims 29, 32 and 34 were made to correct obvious typographical errors. Claim 10 was rewritten in independent form. No new matter has been added by these amendments.

Restriction Requirement

In the Restriction Requirement, the Examiner requested Applicants to elect one of the following inventions:

Group I: claims 1, 2, 16, 17, and 45 drawn to RCNγ having SEQ ID NO:1; or claims 1, 2, 16, 17, and 45 [46] drawn to RCNδ having SEQ ID NO:3.

Group II: claims 3, 4, 5, 6, 7, 9, 11, and 12 [and 47] drawn to polynucleotides encoding RCNγ having SEQ ID NO:1; or claims 3, 4, 5, 6, 7, 9, 11, and 12 [and 48] drawn to polynucleotides encoding RCNδ having SEQ ID NO:3.

Group III: claim 8 drawn to a transgenic organism comprising a polynucleotide encoding RCNγ having SEQ ID NO:1; or claim 8 drawn to a transgenic organism comprising a polynucleotide encoding RCNδ having SEQ ID NO:3.

GroupIV: claims 10, 30, 31, 33, 36, 37, 39-42 drawn to antibodies against RCNγ having SEQ ID NO:1; or claims 10, 30, 31, 33, 36, 37, 39-42 drawn to antibodies against RCNδ having SEQ ID NO:3.

Group V: claims 13 and 14 drawn to a method for detecting a polynucleotide encoding RCNγ having SEQ ID NO:1 via Southern blot; or claims 13 and 14 drawn to a method for detecting a polynucleotide encoding RCNδ having SEQ ID NO:3 via Southern blot.

Group VI: claim 15 drawn to a method for detecting a polynucleotide encoding RCNγ having SEQ ID NO:1 via PCR; or claim 15 drawn to a method for detecting a polynucleotide encoding RCNδ having SEQ ID NO:3 via PCR.

Group VII: claim 18 drawn to a method of treatment by administering RCNγ having SEQ ID NO:1; or claim 18 drawn to a method of treatment by administering RCNδ having SEQ ID NO:3.

Group VIII: claim 19 drawn to a method for screening for an agonist using RCNγ having SEQ ID NO:1; or claim 19 drawn to a method for screening for an agonist using RCNδ having SEQ ID NO:3.

Group IX: claim 20 drawn to an agonist of RCNγ having SEQ ID NO:1; or claim 20 drawn to an agonist of RCNδ having SEQ ID NO:3.

Group X: claim 21 drawn to a method of treatment by administering the agonist of RCNγ having SEQ ID NO:1; or claim 21 drawn to a method of treatment by administering the agonist of RCNδ having SEQ ID NO:3.

Group XI: claim 22 drawn to a method for screening for an antagonist using RCNγ having SEQ ID NO:1; or claim 22 drawn to a method for screening for an antagonist using RCNδ having SEQ ID NO:3.

Group XII: claim 23 drawn to an antagonist of RCNγ having SEQ ID NO:1; or claim 23 drawn to an antagonist of RCNδ having SEQ ID NO:3.

Group XIII: claim 24 drawn to a method of treatment by administering the antagonist of RCNγ having SEQ ID NO:1; or claim 24 drawn to a method of treatment by administering the antagonist of RCNδ having SEQ ID NO:3.

Group XIV: claim 25 drawn to a method for screening for compounds that bind RCNγ having SEQ ID NO:1; or claim 25 drawn to a method for screening for compounds that bind RCNδ having SEQ ID NO:3.

Group XV: claim 26 drawn to a method for screening for compounds that modulate the activity of RCNγ having SEQ ID NO:1; or claim 26 drawn to a method for screening for compounds that modulate the activity of RCNδ having SEQ ID NO:3.

Group XVI: claim 27 drawn to a method for screening for compounds that alter the expression of nucleic acids encoding RCNγ having SEQ ID NO:1; or claim 27 drawn to a method for screening for compounds that alter the expression of nucleic acids encoding RCNδ having SEQ ID NO:3.

Group XVII: claim 28 drawn to a method for assessing the toxicity of a compound via nucleic acids encoding RCNγ having SEQ ID NO:1; or claim 28 drawn to a method for assessing the toxicity of a compound via nucleic acids encoding RCNδ having SEQ ID NO:3.

Group XVIII: claim 29 drawn to a diagnostic test via antibodies against RCNγ having SEQ ID NO:1; or claim 29 drawn to a diagnostic test via antibodies against RCNδ having SEQ ID NO:3.

Group XIX: claims 32 and 34 drawn to a method of diagnosing via administration of the antibody against RCNγ having SEQ ID NO:1; or claims 32 and 34 drawn to a method of diagnosing via administration of the antibody against RCNδ having SEQ ID NO:3.

Group XX: claims 35 and 38 drawn to methods of making antibodies against RCNγ having SEQ ID NO:1; or claims 35 and 38 drawn to methods of making antibodies against RCNδ having SEQ ID NO:3.

Group XXI: claim 43 drawn to a method of detecting RCNγ via the antibody against RCNγ having SEQ ID NO:1; or claim 43 drawn to a method of detecting RCNδ via the antibody against RCNδ having SEQ ID NO:3.

Group XXII: claim 44 drawn to a method of purifying RCNγ via the antibody against RCNγ having SEQ ID NO:1; or claim 44 drawn to a method of purifying RCNδ via the antibody against RCNδ having SEQ ID NO:3.

Applicants hereby elect, with traverse, to prosecute Group IV claims 10, 30, 31, 33, 36, 37 and 39-42 drawn to antibodies against RCNδ having SEQ ID NO:3. Applicants reserve the right to prosecute the subject matter of non-elected claims in subsequent divisional applications.

Applicants submit that, upon allowance of product claims 10, 30, 31, 33, 36-37 and 39-42, claims 29, 32, 34, 35, 38, 43 and 44, drawn to methods of making and using the products of claims 10, 30, 31, 33, 36-37 and 39-42, should be rejoined, per the Commissioner's Notice in the Official Gazette of March 26, 1996, entitled "Guidance on Treatment of Product and Process Claims in light of *In re Ochiai, In re Brouwer* and 35 U.S.C. § 103(b)" which sets forth the rules, upon allowance of product claims, for rejoinder of process claims covering the same scope of products.

Applicants believe that no fee is due with this communication. However, if the USPTO determines that a fee is due, the Commissioner is hereby authorized to charge Deposit Account No. 09-0108.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claim 1 has been cancelled.

Claims 10, 29, 32, 34, 35, 38, 43 and 44 have been amended as follows:

10. (Once amended.) An isolated antibody which specifically binds to a polypeptide [of claim 1.] selected from the group consisting of:

a) a polypeptide comprising the amino acid sequence of SEQ ID NO:3,

b) a polypeptide comprising a naturally occurring amino acid sequence at least 90% identical to the amino acid sequence of SEQ ID NO:3,

c) a biologically active fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO:3, and

d) an immunogenic fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO:3.

29. (Once amended.) A diagnostic test for a condition or disease associated with the expression of [HMRP] RCN in a biological sample, the method comprising[the steps of]:

a) combining the biological sample with an antibody of claim 10, under conditions suitable for the antibody to bind the polypeptide and form an antibody:polypeptide complex; and

b) detecting the complex, wherein the presence of the complex correlates with the presence of the polypeptide in the biological sample.

32. (Once amended.) A method of diagnosing a condition or disease associated with the expression of [HMRP] RCN in a subject, comprising administering to said subject an effective amount of the composition of claim 31.

34. (Once amended.) A method of diagnosing a condition or disease associated with the expression of [HMRP] RCN in a subject, comprising administering to said subject an effective amount of the composition of claim 33.

35. (Once amended.) A method of preparing a polyclonal antibody with the specificity of the antibody of claim 10 comprising:

a) immunizing an animal with a polypeptide having [an] the amino acid sequence of [SEQ ID NO:1 or] SEQ ID NO:3,[,] or an immunogenic fragment thereof, under conditions to elicit an antibody response;

b) isolating antibodies from said animal; and

c) screening the isolated antibodies with the polypeptide, thereby identifying a polyclonal antibody which binds specifically to a polypeptide having [an] the amino acid sequence of [SEQ ID NO:1 or] SEQ ID NO:3.

38. (Once amended.) A method of making a monoclonal antibody with the specificity of the antibody of claim 10 comprising:

a) immunizing an animal with a polypeptide having [an] the amino acid sequence of [SEQ ID NO:1 or] SEQ ID NO:3, or an immunogenic fragment thereof, under conditions to elicit an antibody response;

b) isolating antibody producing cells from the animal;

c) fusing the antibody producing cells with immortalized cells to form monoclonal antibody-producing hybridoma cells;

d) culturing the hybridoma cells; and

e) isolating from the culture monoclonal antibody which binds specifically to a polypeptide having [an] the amino acid sequence of [SEQ ID NO:1 or] SEQ ID NO:3.[.]

43. (Once amended.) A method for detecting a polypeptide having [an] the amino acid sequence of [SEQ ID NO:1 or] SEQ ID NO:3 in a sample, the method comprising [the steps of]:

a) incubating the antibody of claim 10 with a sample under conditions to allow specific binding of the antibody and the polypeptide; and

b) detecting specific binding, wherein specific binding indicates the presence of a polypeptide having [an] the amino acid sequence of [SEQ ID NO:1 or] SEQ ID NO:3 in the sample.

44. (Once amended.) A method of purifying a polypeptide having [an] the amino acid sequence of [SEQ ID NO:1 or] SEQ ID NO:3 from a sample, the method comprising:

a) incubating the antibody of claim 10 with a sample under conditions to allow specific binding of the antibody and the polypeptide; and

b) separating the antibody from the sample and obtaining the purified polypeptide having [an] the amino acid sequence of [SEQ ID NO:1 or] SEQ ID NO:3.